

## BIOL 2404 Human Anatomy & Physiology (4 credit hours) Fall 2019 SRSU Syllabus and Course Information

**Instructor:** Ms. Anne Marie Hilscher  
**Office:** WSB 314A  
**Phone:** 837-8725  
**Class time:** Tues/Thurs 8:00-9:15 AM  
in WSB 201

**Office hours:** Tues/Thurs 9:30-10:45AM  
or by appt.  
**Email:** [ahilscher@sulross.edu](mailto:ahilscher@sulross.edu) (Type "BIOL 2404" in subject line and sign your emails)

**Optional Textbook:** LaPres, Kersten & Tang Gunstream's *Anatomy & Physiology with integrated study guide*, 6th Edition (2016). ISBN: 978-0-07-809729-4. McGraw Hill. or any comparable A&P textbook.

**Course Description:** This course is a four-hour introduction to the basic structure and function of human systems, with emphasis on the musculoskeletal, nervous, cardiovascular, and respiratory systems. The anatomy and physiology of the various systems will be addressed in both lecture and laboratory. This course is designed for non-Biology majors and covers in a single semester the same general areas of anatomy and physiology covered in two semesters in BIOL 2401 and 2402, but less intensively. Prerequisite: BIOL 1313 (Zoology) with a grade of C or better, or permission of instructor.

### Learning Objectives for this course:

- 1) The student will use anatomical terminology to locate structures or lesions by relative positions, body sections and body regions.
- 2) The student will recognize major tissue types and subtypes, and their functions.
- 3) The student will distinguish body tissues, organs and systems as different levels of organization.
- 4) The student will understand the structure and function of the human integumentary, skeletal, and muscular systems, as well as the nervous, cardiovascular, respiratory and digestive systems.
- 5) The student will determine quantitative physiological variables such as cardiac output.
- 6) The student will analyze electrolyte concentrations and relative diffusion rates to explain action potentials in excitable cells.
- 7) The student will correlate clinical signs with activity of sympathetic or parasympathetic divisions of the autonomic nervous system.

**EXAMS & QUIZZES:** Your final grade will be based on your performance on three exams, five quizzes, your lab score, and the final exam. **Lecture quizzes cannot be made up.** More quizzes may be administered in lecture, but the lowest scores will be dropped. *You will receive a separate lab syllabus from your lab instructor.*

Task	Points	Approx. percentage
Lecture Exams (3 @ 100 pts ea)	300	(40%)
Quizzes (5 @ 20 pts ea)	100	(15%)
Final Exam (selectively comprehensive)	150	(20%)
<u>Lab</u>	<u>180</u>	<u>(25%)</u>
<b>TOTAL</b>	<b>730</b>	<b>(100%)</b>

**ATTENDANCE.** Missing any exam will notifying me in advance will result in a zero for that exam grade—no exceptions. You must call my office, leave a message, or tell me in person before the exam, You will have five days (including weekends) from the test date to make up the missed exam; often the makeup exam will be different from the original exam. **\*\*If you arrive for an exam after other students have completed and turned in their exams, you will not be allowed to take the exam.\*\*** If you fail to appear (or appear late) for your scheduled makeup exam, you will receive a zero. Finally, if you miss a class, it is your responsibility to get notes and other important information from a classmate.

## Tentative Lecture Outline

<b>Date</b>	<b>Lecture Topic</b>	<b>Chapter in Gunstream</b>
Aug 27	Introduction to the Human Body	1
Aug 29	Chemicals of Life	2
Sep 03	The Cell	3
Sep 05	Tissues and Membranes	4
Sep 10	Integumentary System	5
Sep 12	Skeletal System	6
Sep 17	Skeletal System	6
<b>Sep 19 (Thurs.)</b>	<b>EXAM #1</b>	
Sep 24	Muscular System	7
Sept 26	Muscular System	7
Oct 01	Nervous System	8
Oct 03	Nervous System	8
Oct 08	Blood	11
Oct 10	Blood	11
Oct 15	Cardiovascular System	12
Oct 17	Cardiovascular System	12
<b>Oct 22 (Tues.)</b>	<b>EXAM #2</b>	
Oct 24	Lymphatic System	13
Oct 29	Respiratory System	14
Oct 31	Respiratory System	14
Nov 05	Digestive System	15
Nov 07	Digestive System	15
Nov 12	Urinary System	16
Nov 14	Urinary System	16
<b>Nov 19 (Tues.)</b>	<b>EXAM #3</b>	
Nov 26	Senses	9
<i>Nov 27-29</i>	<i>NO CLASSES—THANKSGIVING HOLIDAYS</i>	
Dec 03	Senses	9
<i>Dec 05</i>	<i>NO CLASSES—STUDY DAY</i>	
<b>Dec 11 (Wed.)</b>	<b>Final Exam @ Time:</b>	

Note – This schedule is subject to change for reasons of course interest or time constraint. However, the exams always will be administered on the dates given.

### STUDENT LEARNING OUTCOMES (SLOS)

The graduating biology student graduating with a BS in Biology should be able to:

- 1) The student will be able to demonstrate an understanding of basic biological concepts, including but not limited to evolution via natural selection, cell theory, and the role and function of DNA.
- 2) The student will be able to demonstrate utilization of various field techniques toward addressing scientific questions in the specific discipline. These field techniques can include, but are not limited to, plant collection and processing, various animal collection techniques, ecological surveying and sampling, and biodiversity indexing.
- 3) The student will be able to use biological instrumentation to solve biological problems using standard observational strategies.
- 4) The student will develop writing skills by summarizing and critiquing recent relevant biological literature.

**CORE OBJECTIVES ADDRESSED:**

- Team Work
- Communication
- Critical Thinking Skills
- Empirical and Quantitative Skills
- Social Responsibility
- Personal Responsibility

ADA (Americans with Disabilities Act) Sul Ross State University is committed to equal access in compliance with the Americans with Disabilities Act of 1973. It is the student's responsibility to initiate a request for accessibility services.

Students seeking accessibility services must contact Mary Schwartze-Grisham, M. Ed., LPC., in Counseling and Accessibility Services, Ferguson Hall, Room 112. The mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas. Telephone: 432-837-8691. E-mail: [mschwartze@sulross.edu](mailto:mschwartze@sulross.edu)